



New York State Metropolitan Transportation Authority Emissions Year 2011

New York State Metropolitan
Transportation Authority

Detail Report - Control (Public)

Complete Inventory 2011

Description:

Industry: 48 - Transportation and Warehousing

Address: 347 Madison Avenue

10th Floor

New York, New York US

Contact: Website:

Reporting Information

Reporting Protocol: General Reporting Protocol 1.1 and associated updates and clarifications

GWP Standard: SAR

Base Year: None

Consolidation Methodology: Operational Control Only

Status: TCR Accepted

Verification Information

Verification Body: LRQA Americas Sustainability, Inc.

Level of Assurance: Reasonable

Entity Emissions | Total in metric tons of CO2e

Scope 1 - Direct Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄ (t of CO₂e)	N₂O (t of CO₂e)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t of CO₂e)	SF₅ (t of CO₂e)
Stationary Combustion	114,961.87743	114,460.23529	36.37395	465.26819	0	0	0	0
Mobile Combustion	775,126.44915	770,755.16494	1,486.95985	2,884.32436	0	0	0	0
Fugitive	5,385.107	0	0	0	5,385.107	0	0	0
Total	895,473.43358	885,215.40023	1,523.3338	3,349.59255	5,385.107	0	0	0
NetTotal	895,473.43358	885,215.40023	1,523.3338	3,349.59255	5,385.107	0	0	0
Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄ (t of CO₂e)	N₂O (t of CO₂e)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t of CO₂e)	SF₅ (t of CO₂e)
Purchased Electricity - Market Based	1,109,522.34446	1,107,091.69356	727.51195	1,703.13895	0	0	0	0
Purchased Steam - Market Based	17,958.13691	17,925.04734	9.74998	23.33959	0	0	0	0
Total	1,127,480.48137	1,125,016.7409	737.26193	1,726.47854	0	0	0	0
NetTotal	1,127,480.48137	1,125,016.7409	737.26193	1,726.47854	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄ (t of CO₂e)	N₂O (t of CO₂e)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t of CO₂e)	SF ₆ (t of CO ₂ e)
Stationary Biomass Combustion	729.0417	729.0417	0	0	0	0	0	0
Mobile Biomass Combustion	390.57134	390.57134	0	0	0	0	0	0
Total	1,119.61304	1,119.61304	0	0	0	0	0	0
NetTotal	1,119.61304	1,119.61304	0	0	0	0	0	0

Optional - Optional Emissions		Total CO₂e (t)	CO ₂ (t)	CH₄ (t of CO₂e)	N₂O (t of CO₂e)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t of CO₂e)	SF₅ (t of CO₂e)
Scope 3		65,952.86912	65,866.60717	86.17329	0.08866	0	0	0	0
	Total	65,952.86912	65,866.60717	86.17329	0.08866	0	0	0	0
	NetTotal	65,952.86912	65,866.60717	86.17329	0.08866	0	0	0	0

Entity Emissions | Total in metric tons of gas

Scope 1 - Direct Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄ (t)	N ₂ O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF ₆ (t)
Stationary Combustion	114,961.87743	114,460.23529	1.7321	1.50088	0	0	0	0
Mobile Combustion	775,126.44915	770,755.16494	70.80763	9.30423	0	0	0	0
Fugitive	5,385.107	0	0	0	5,385.107	0	0	0
Total	895,473.43358	885,215.40023	72.53973	10.80511	5,385.107	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄ (t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF _e (t)
Purchased Electricity - Market Based	1,109,522.34446	1,107,091.69356	34.64341	5.494	0	0	0	0
Purchased Steam - Market Based	17,958.13691	17,925.04734	0.46428	0.07529	0	0	0	0
Total	1,127,480.48137	1,125,016.7409	35.10769	5.56929	0	0	0	0
Biogenic - Direct Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄ (t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF ₆ (t)
Stationary Biomass Combustion	729.0417	729.0417	0	0	0	0	0	0
Mobile Biomass Combustion	390.57134	390.57134	0	0	0	0	0	0
Total	1,119.61304	1,119.61304	0	0	0	0	0	0
Optional - Optional Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄ (t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF _e (t)
Scope 3	65,952.86912	65,866.60717	4.10349	0.00029	0	0	0	0
Total	65,952.86912	65,866.60717	4.10349	0.00029	0	0	0	0

Simplified Estimation Methods (SEMs)

Estimated CO₂e as a Percentage of Total*	Total Emissions (t of CO₂e)	Total Estimated CO₂e (t)	
N/A	0	0	Location Based
0.620800122932198%	2,024,073.52799	12,565.45095	Market Based
*Total based on scope 1, scope 2 & biomass emissions			

Facility Emissions | HFC, PFC, and SF6 Emissions

Equity share - 100% | Entity controls the facility emissions - Yes 347 Madison Ave, New York, New York, 10017, US

Scope 1 - Direct Emissions		Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Fugitive		5,385.107	0	0	0	5,385.107	0	0	0
	Total	5,385.107	0	0	0	5,385.107	0	0	0

Facility Emissions | MTA Bridges & Tunnels (B&T) Facilities (Non-traction electricity+heating)

Scope 1 - Direct Emissions		Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Stationary Combustion		6,011.99955	5,993.98588	0.07151	0.05327	0	0	0	0
	Total	6,011.99955	5,993.98588	0.07151	0.05327	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Purchased Electricity - Market Based	14,142.43802	14,123.26963	0.25772	0.04437	0	0	0	0
Total	14,142.43802	14,123.26963	0.25772	0.04437	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Stationary Biomass Combustion	208.92154	208.92154	0	0	0	0	0	0
Total	208.92154	208.92154	0	0	0	0	0	0

Facility Emissions | MTA Bridges & Tunnels (B&T) Ground-based fleet (non-revenue)

Scope 1 - Direct Emissions		Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF ₆ (t)
Mobile Combustion		3,303.44354	3,298.62944	0.22897	0	0	0	0	0
	Total	3,303.44354	3,298.62944	0.22897	0	0	0	0	0

Biogenic - Direct Emissions	Total CO ₂ e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF ₆ (t)
Mobile Biomass Combustion	376.51	376.51	0	0	0	0	0	0
Total	376.51	376.51	0	0	0	0	0	0

Facility Emissions | MTA Bus Company Facilities (Non-traction electricity+heating)

Scope 1 - Direct Emissions		Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF ₆ (t)
Stationary Combustion		5,210.70052	5,182.55444	0.08608	0.08496	0	0	0	0
	Total	5,210.70052	5,182.55444	0.08608	0.08496	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Purchased Electricity - Market Based	2,619.33456	2,615.78436	0.04773	0.00822	0	0	0	0
Total	2,619.33456	2,615.78436	0.04773	0.00822	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Stationary Biomass Combustion	10.55896	10.55896	0	0	0	0	0	0
Total	10.55896	10.55896	0	0	0	0	0	0

Facility Emissions | MTA Bus Company Ground-based fleet (non-revenue)

Equity share - 100% | Entity controls the facility emissions - Yes

N/A, N/A, New York, N/A, US

Scope 1 - Direct Emissions	Total CO ₂ e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Mobile Combustion	555.31074	554.58424	0.03455	0	0	0	0	0
То	tal 555.31074	554.58424	0.03455	0	0	0	0	0

Facility Emissions | MTA Bus Company Ground-based fleet (revenue)

Scope 1 - Direct Emissions		Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Mobile Combustion		122,415.82288	121,974.96464	8.23826	0.86405	0	0	0	0
	Total	122,415.82288	121,974.96464	8.23826	0.86405	0	0	0	0

Facility Emissions | MTA Headquarters (HQ) Facilities (Non-traction electricity+heating)

Equity share - 100% | Entity controls the facility emissions - Yes

N/A, N/A, New York, N/A, US

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Purchased Electricity - Market Based	9,213.79604	9,201.30784	0.1679	0.02891	0	0	0	0
Purchased Steam - Market Based	2,452.8113	2,448.29188	0.06341	0.01028	0	0	0	0
Total	11,666.60734	11,649.59972	0.23131	0.03919	0	0	0	0

Facility Emissions | MTA Headquarters (HQ) Ground-based fleet (non-revenue)

Scope 1 - Direct Emissions		Total CO₂e (t)	CO ₂ (t)	CH₄ (t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO ₂ e)	NF₃(t)	SF₀(t)
Mobile Combustion		3,222.37971	3,218.16504	0.20049	0.00001	0	0	0	0
	Total	3,222.37971	3,218.16504	0.20049	0.00001	0	0	0	0

Facility Emissions | MTA Long Island Bus (LIB) Facilities (Non-traction electricity+heating)

Scope 1 - Direct Emissions		Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Stationary Combustion		3,798.98035	3,777.75453	0.06413	0.06413	0	0	0	0
	Total	3,798.98035	3,777.75453	0.06413	0.06413	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO ₂ e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Purchased Electricity - Market Based	9,318.39751	9,278.25902	0.65272	0.08526	0	0	0	0
Total	9,318.39751	9,278.25902	0.65272	0.08526	0	0	0	0

Facility Emissions | MTA Long Island Bus (LIB) Ground-based fleet (revenue+non-revenue)

Equity share - 100% | Entity controls the facility emissions - Yes N/A, N/A, New York, N/A, US

Scope 1 - Direct Emissions		Total CO ₂ e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Mobile Combustion		40,098.85212	38,939.21149	24.07173	2.1101	0	0	0	0
	Total	40,098.85212	38,939.21149	24.07173	2.1101	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Mobile Biomass Combustion	0.2346	0.2346	0	0	0	0	0	0
Total	0.2346	0.2346	0	0	0	0	0	0

Facility Emissions | MTA Long Island Rail Road (LIRR) Electricity - Traction Power (Revenue)

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO ₂ e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Purchased Electricity - Market Based	229,526.70949	228,722.1274	13.01224	1.71395	0	0	0	0
Total	229,526.70949	228,722.1274	13.01224	1.71395	0	0	0	0

Facility Emissions | MTA Long Island Rail Road (LIRR) Facilities (Non-traction electricity+heating)

Scope 1 - Direct Emissions		Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Stationary Combustion		10,583.25854	10,524.55754	0.18165	0.17705	0	0	0	0
	Total	10,583.25854	10,524.55754	0.18165	0.17705	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Purchased Electricity - Market Based	38,301.82423	38,192.38629	1.72722	0.23603	0	0	0	0
Total	38,301.82423	38,192.38629	1.72722	0.23603	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO ₂ e)	NF₃(t)	SF₅(t)
Stationary Biomass Combustion	0.84738	0.84738	0	0	0	0	0	0
Total	0.84738	0.84738	0	0	0	0	0	0

Facility Emissions | MTA Long Island Rail Road (LIRR) Ground-based fleet (revenue+non-revenue)

Equity share - 100% | Entity controls the facility emissions - Yes

N/A, N/A, New York, N/A, US

Scope 1 - Direct Emissions		Total CO ₂ e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF₀(t)
Mobile Combustion		80,999.66264	80,297.14207	6.1678	1.84837	0	0	0	0
	Total	80,999.66264	80,297.14207	6.1678	1.84837	0	0	0	0

Facility Emissions | MTA Metro-North Railroad (MNR) Electricity (CT) - Traction Power (Revenue)

Scope 2 - Marke Emissions	et Based - Indirect	Total CO ₂ e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Purchased Elec	stricity - Market Based	41,116.48539	40,786.98946	4.23791	0.77581	0	0	0	0
	Total	41,116.48539	40,786.98946	4.23791	0.77581	0	0	0	0

Facility Emissions | MTA Metro-North Railroad (MNR) Electricity (NYS) - Traction Power (Revenue)

Equity share $\,$ - 100% | Entity controls the facility emissions - Yes

N/A, N/A, New York, N/A, US

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF ₆ (t)
Purchased Electricity - Market Based	97,673.8552	97,517.05688	1.87485	0.37879	0	0	0	0
Total	97,673.8552	97,517.05688	1.87485	0.37879	0	0	0	0

Facility Emissions | MTA Metro-North Railroad (MNR) Facilities - CT (Non-traction electricity+heating)

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Purchased Electricity - Market Based	5,162.202	5,120.83356	0.53207	0.09741	0	0	0	0
Total	5,162.202	5,120.83356	0.53207	0.09741	0	0	0	0

Facility Emissions | MTA Metro-North Railroad (MNR) Facilities - NY (Non-traction electricity+heating)

Scope 1 - Direct Emissions		Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Stationary Combustion		11,027.23077	10,992.62636	0.13693	0.10236	0	0	0	0
	Total	11,027.23077	10,992.62636	0.13693	0.10236	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Purchased Electricity - Market Based	24,911.10327	24,861.58559	0.51522	0.12483	0	0	0	0
Purchased Steam - Market Based	15,505.32561	15,476.75546	0.40087	0.06501	0	0	0	0
Total	40,416.42888	40,338.34105	0.91609	0.18984	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Stationary Biomass Combustion	360.85912	360.85912	0	0	0	0	0	0
Total	360.85912	360.85912	0	0	0	0	0	0

Facility Emissions | MTA Metro-North Railroad (MNR) Ground-based fleet (non-revenue)

Equity share - 100% | Entity controls the facility emissions - Yes 347 Madison Ave, New York, New York, 10017, US

Scope 1 - Direct Emissions		Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Mobile Combustion		13,370.27798	13,320.22578	0.86179	0.10307	0	0	0	0
	Total	13,370.27798	13,320.22578	0.86179	0.10307	0	0	0	0

Facility Emissions | MTA Metro-North Railroad (MNR) Ground-based fleet (Revenue)

Scope 1 - Direct Emissions		Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Mobile Combustion		69,136.24645	68,482.94198	5.36595	1.74394	0	0	0	0
	Total	69,136.24645	68,482.94198	5.36595	1.74394	0	0	0	0

Facility Emissions | MTA NYCT - Paratransit - Ground-based fleet (revenue+non-revenue)

Equity share - 100% | Entity controls the facility emissions - Yes N/A, N/A, New York, N/A, US

Optional - Optional Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Scope 3	65,952.86912	65,866.60717	4.10349	0.00029	0	0	0	0
Tota	65,952.86912	65,866.60717	4.10349	0.00029	0	0	0	0

Facility Emissions | MTA NYCT Electricity - Traction Power (Revenue)

Scope 2 - Market Based - Indirect Emissions	Total CO ₂ e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Purchased Electricity - Market Based	489,745.62695	489,081.83427	8.92464	1.5367	0	0	0	0
Total	489,745.62695	489,081.83427	8.92464	1.5367	0	0	0	0

Facility Emissions | MTA NYCT Facilities (Non-traction electricity+heating)

Scope 1 - Direct Emissions		Total CO ₂ e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF₅(t)
Stationary Combustion		78,329.7077	77,988.75654	1.1918	1.01911	0	0	0	0
	Total	78,329.7077	77,988.75654	1.1918	1.01911	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Purchased Electricity - Market Based	147,790.5718	147,590.25926	2.69319	0.46372	0	0	0	0
Total	147,790.5718	147,590.25926	2.69319	0.46372	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO ₂ e)	NF₃(t)	SF₅(t)
Stationary Biomass Combustion	147.8547	147.8547	0	0	0	0	0	0
Total	147.8547	147.8547	0	0	0	0	0	0

Facility Emissions | MTA NYCT Ground-based fleet (non-revenue)

Equity share $\,$ - 100% | Entity controls the facility emissions - Yes

N/A, N/A, New York, N/A, US

Scope 1 - Direct Emissions		Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Mobile Combustion		17,976.73437	17,956.51233	0.96197	0.00007	0	0	0	0
	Total	17,976.73437	17,956.51233	0.96197	0.00007	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO ₂ (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Mobile Biomass Combustion	13.82674	13.82674	0	0	0	0	0	0
Total	13.82674	13.82674	0	0	0	0	0	0

Facility Emissions | MTA NYCT Ground-based fleet (Revenue)

Scope 1 - Direct Emissions		Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Mobile Combustion		424,047.71872	422,712.78793	24.67612	2.63462	0	0	0	0
	Total	424,047.71872	422,712.78793	24.67612	2.63462	0	0	0	0